

/ Descriptions

PDFN5×6A

MOS

Complementary Enhancement MOSFET in a PDFN5 × 6A Plastic Package.

/ Features

N-channel

P-channel

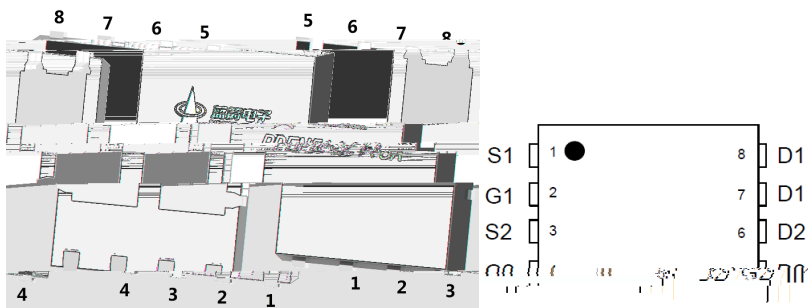
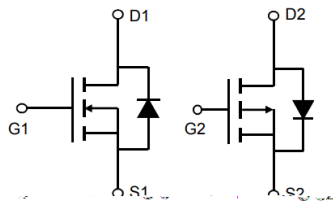
 $V_{DS}(V)=30V$ $V_{DS}(V)=-30V$ $I_D=39.5A$ $I_D=-39A$ $R_{DS(ON)}<10m\Omega(V_{GS}=10V)$ $R_{DS(ON)}<12m\Omega(V_{GS}=-10V)$ $R_{DS(ON)}<15m\Omega(V_{GS}=4.5V)$ $R_{DS(ON)}<20m\Omega(V_{GS}=-4.5V)$

HF Product.

/ Applications

DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies. And suitable for use as a load switch or in PWM applications.

**/ Marking**

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

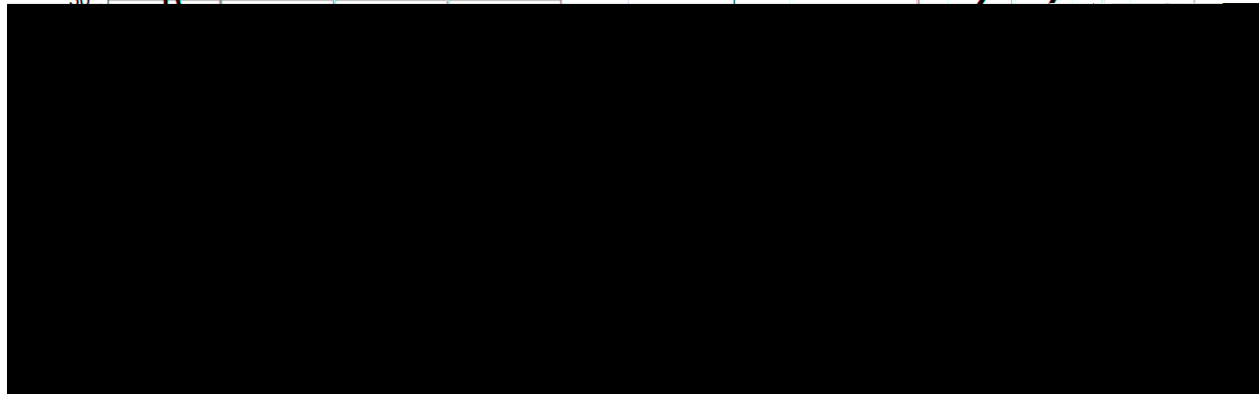
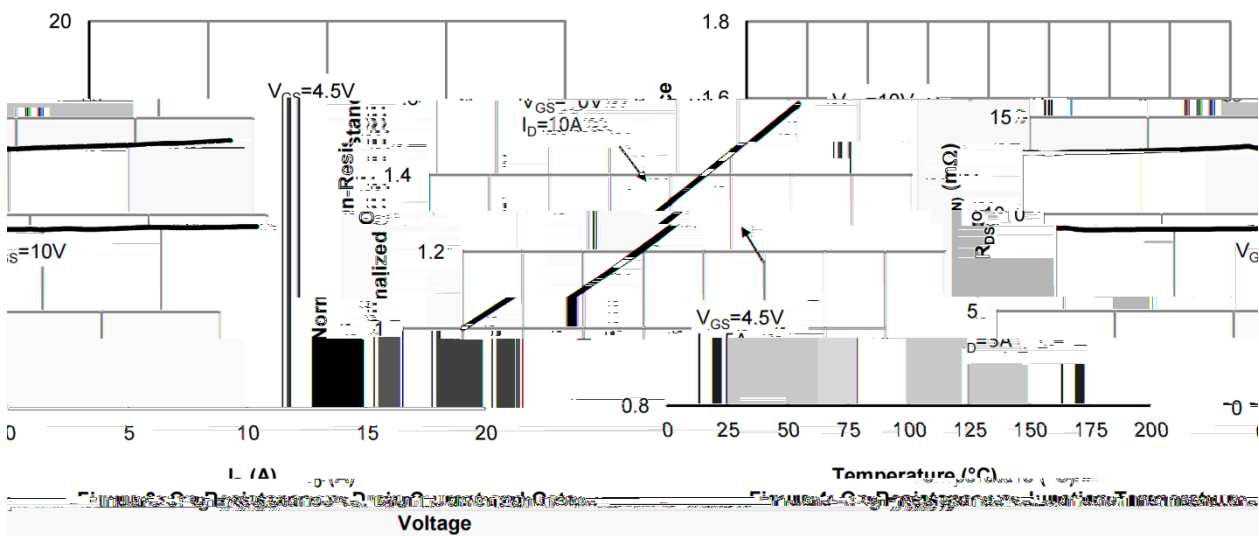
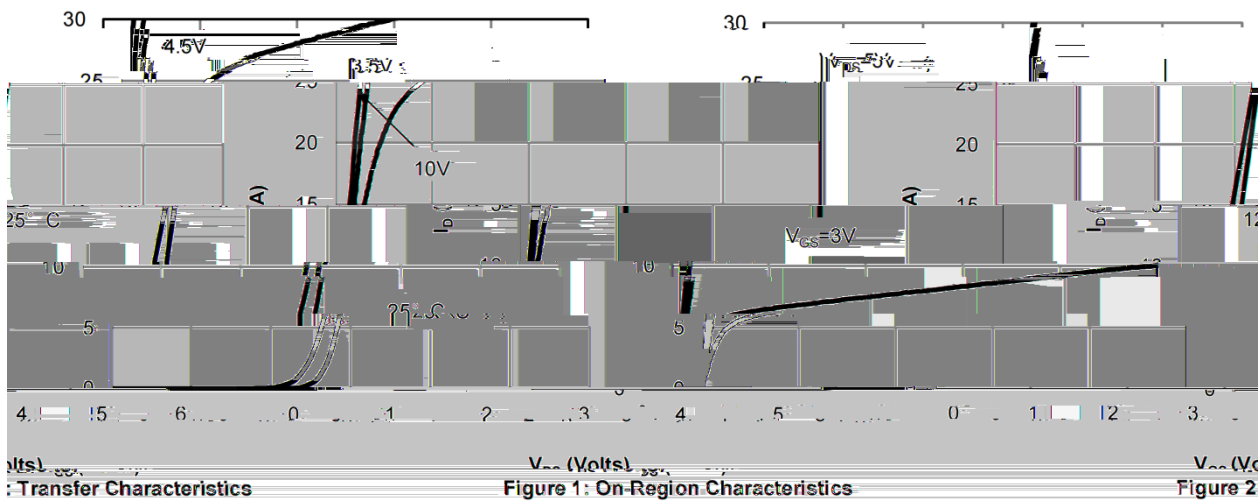
Parameter	Symbol	Rating		Unit
		N-channe	P-channell	
Drain-Source Voltage	V _{DSS}	±30		V
Gate-Source Voltage	V _{GSS}	±20		V
Continuous Drain Current	I _D (T _C =25)	39.5	-39	A
Pulsed Drain Current	I _{DM}	125	-125	A
Avalanche Current(L=0.5mH)	I _{AS}	17	13	A
Avalanche energy(L=0.5mH)	E _{AS}	115	67	mJ
Power Dissipation	P _D (T _C =25)	25	25	W
Junction and Storage Temperature Range	T _J ,T _{STG}	-55 to +150		
Maximum Junction-to-Ambient	R _{ΘJA}	65		/W
Maximum Junction-to-Case	R _{ΘJC}	5		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =250μA	30	35		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =30V V _{GS} =0V			1.0	μA
Gate-Body leakage current	I _{GSS}	V _{GS} =±20V V _{DS} =0V			100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =250μA	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V I _D =10A		8	10	mΩ
		V _{GS} =4.5V I _D =5A		12	15	mΩ
Diode Forward Voltage	V _{SD}	V _{GS} =0V I _S =1.0A			1.2	V
Input Capacitance	C _{iss}			930		pF

Output Capacitance 12GS30 P151 Tf3 pF nAT 55.62 541.34 484.08 .4.4831080095.62 560.78 .4480

$V_{DS}=25V, V_{GS}=0V$
 $f=1.0MHz$

N- / N-CHANNEL Electrical Characteristic Curve



BRCS080C03YM

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown						

P- / P-CHANNEL Electrical Characteristic Curve

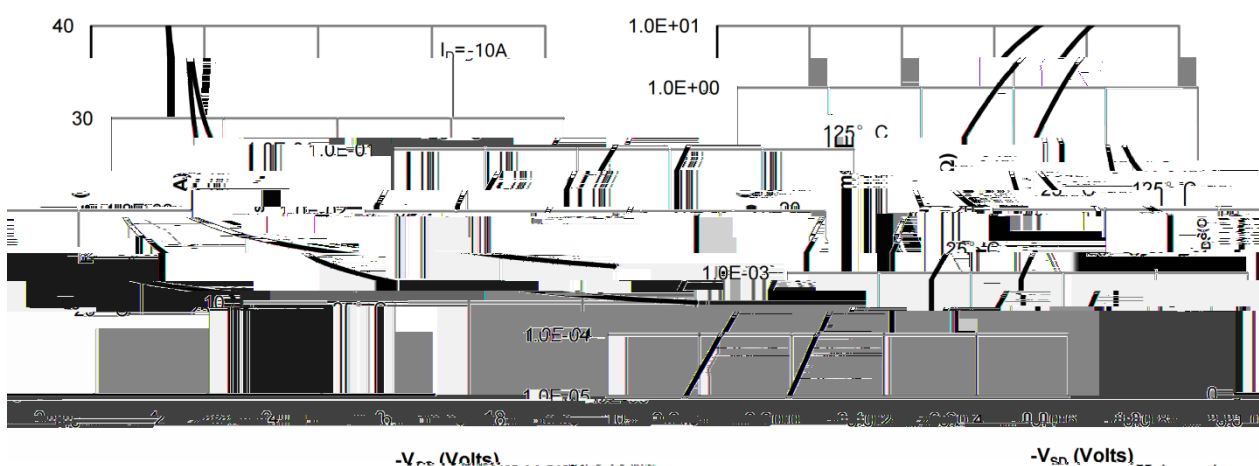
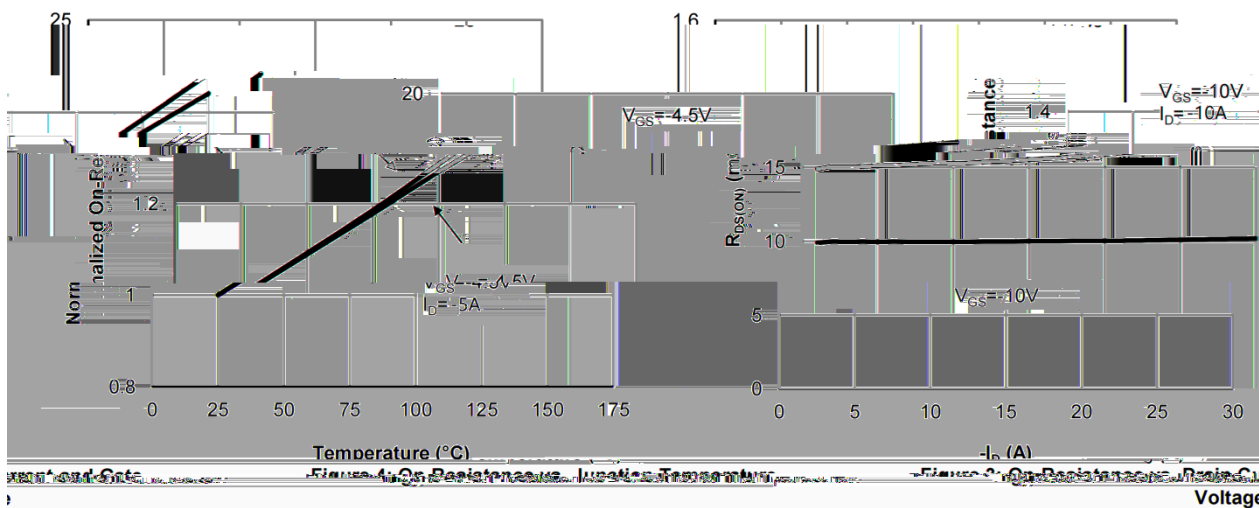
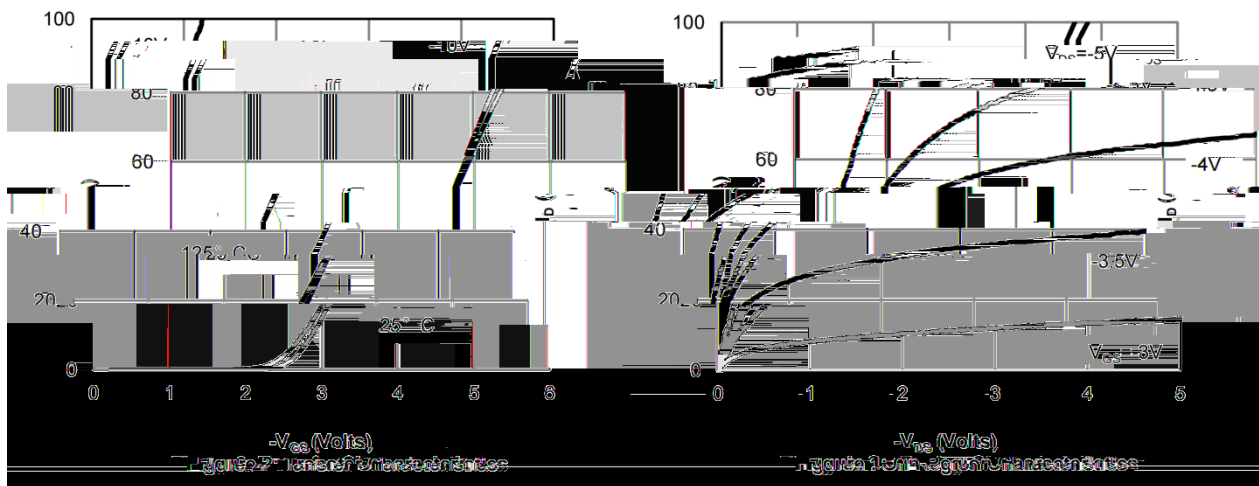
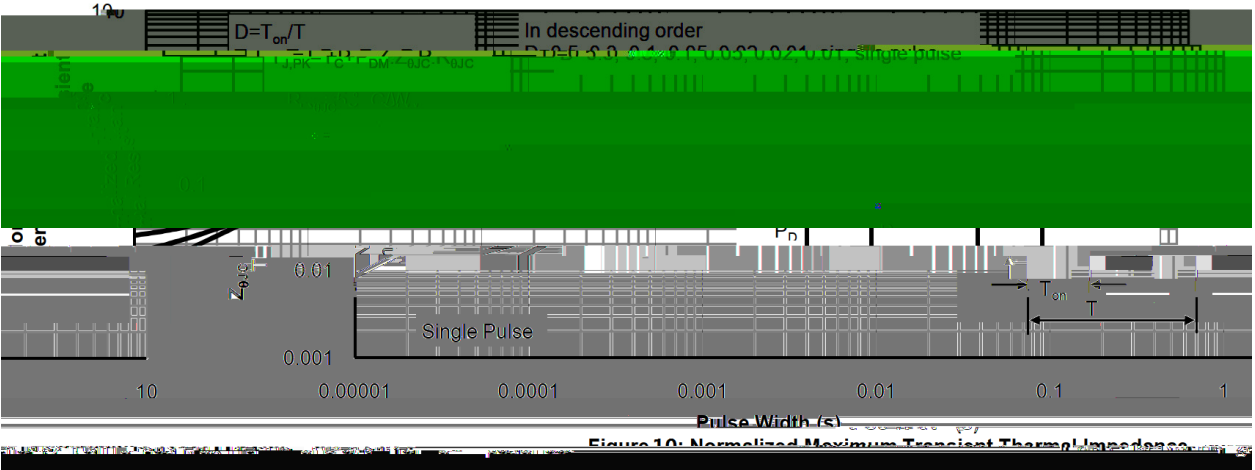
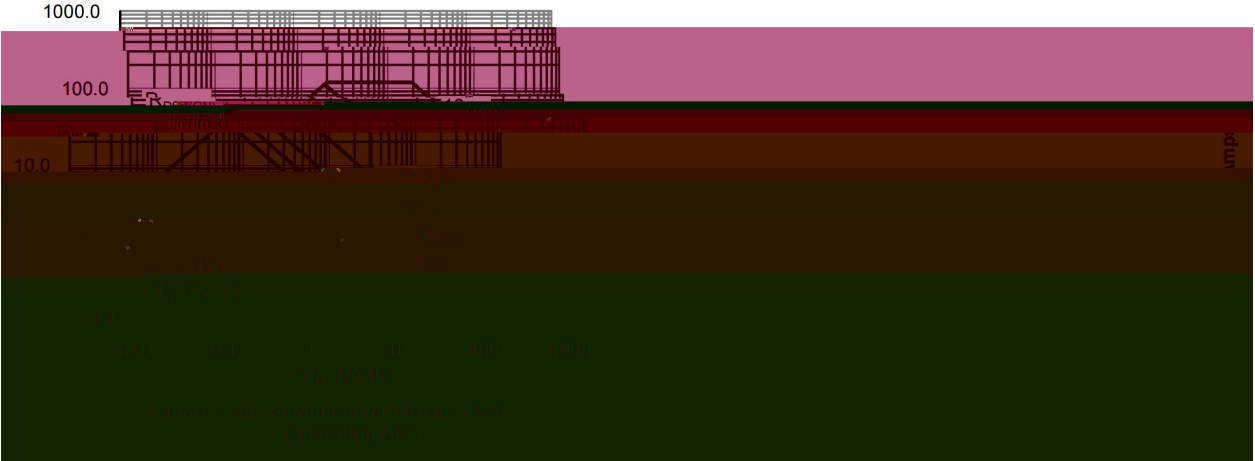
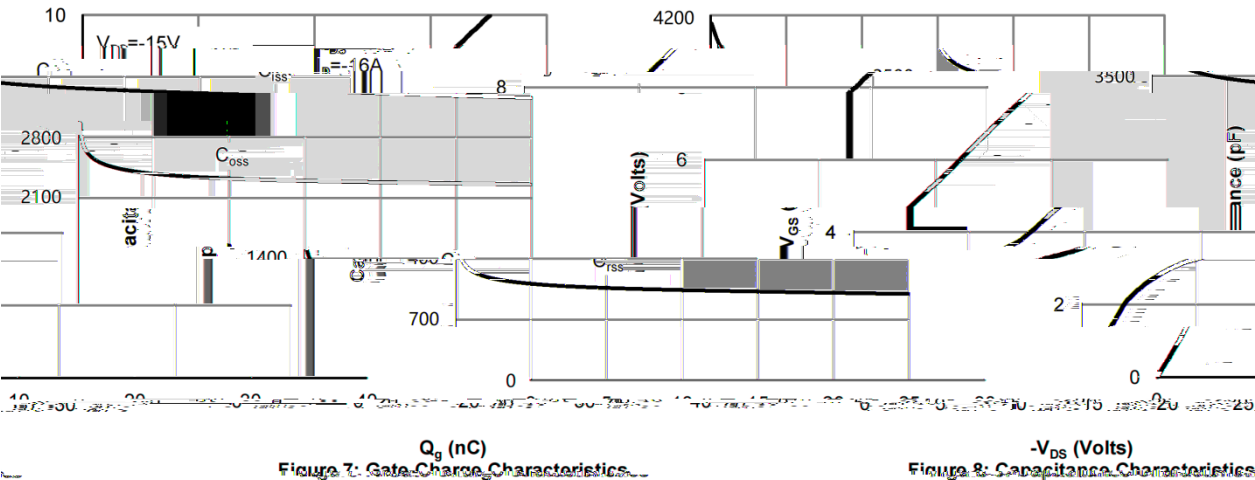


Figure 5: On-Resistance vs. Gate-Source Voltage

Figure 6: Body-Diode Characteristics

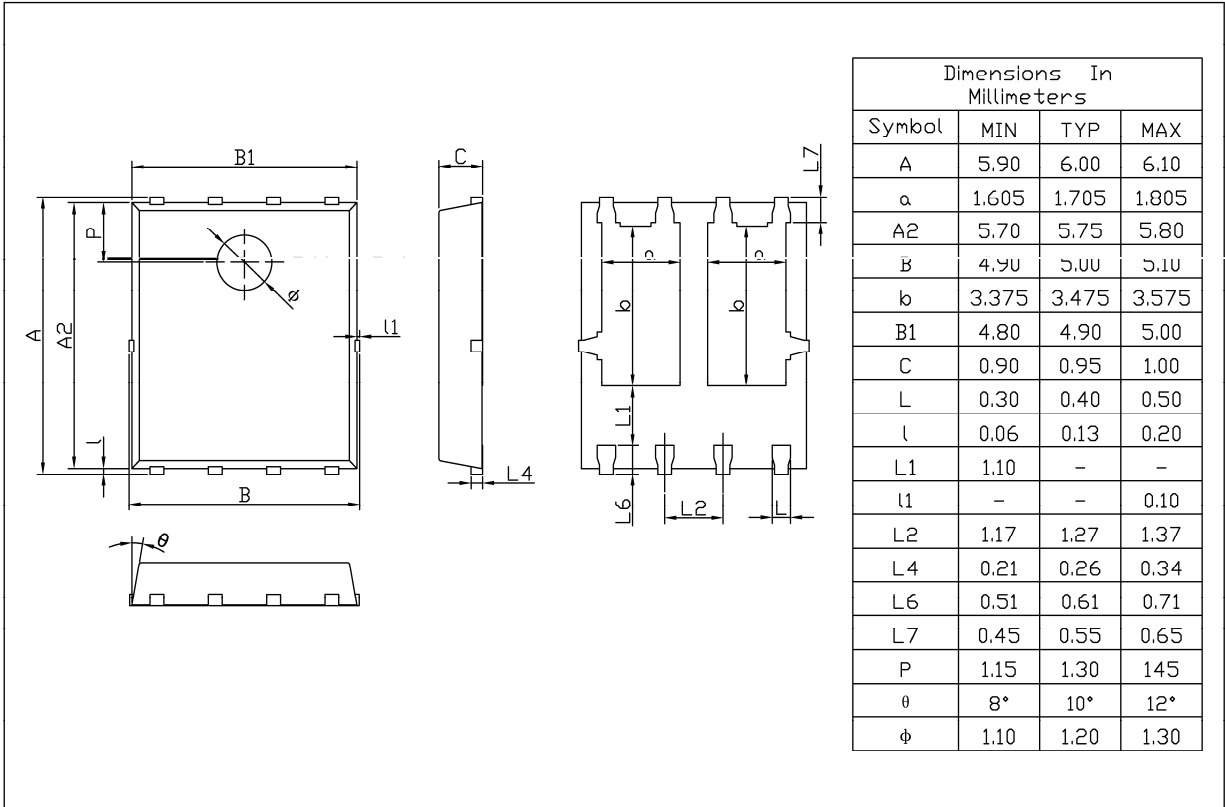
P- / P-CHANNEL Electrical Characteristic Curve



I Package Dimensions

PDFN5 X6A

Unit:mm



Rev.01 202209

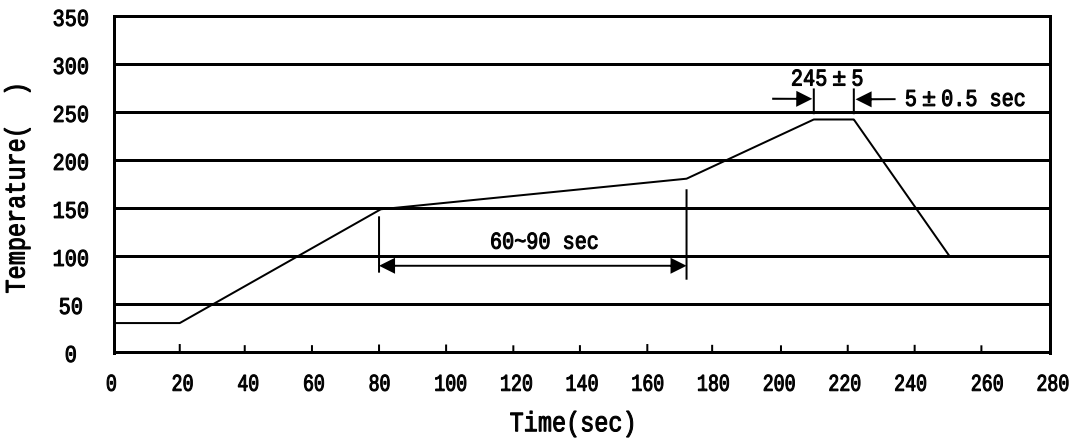
/ Marking Instructions



BR	
080C03	

Note	
BR	Company Code
080C03	Product Type Code
****:	Lot No. Code, code change with Lot No

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 °C , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
PDFN5×6A	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366

/ Notices